UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,464	01/21/2000	William H. Connor	SUN-P4061-JTF	5882

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ART UNIT	PAPER NUMBER
3621	

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	**Applicant(s)**
	09/489,464	CONNOR, WILLIAM H.
Office Action Summary	**Examiner**	**Art Unit**
	Mary Cheung	3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-25,27 and 28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-25,27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

Request for Continued Examination

1. The request filed on October 2, 2003 for a Request for Continued Examination

(RCE) under 37 CFR 1.114 based on parent Application No. 09/489,464 is acceptable

and a RCE has been established. An action on the RCE follows.

Status of the Claims

2. Claims 1-10, 12-25 and 27-28 are pending. Claims 11 and 26 are canceled. Claims

1, 12 and 16 have been amended. Claims 27-28 have been added.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed
> publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-2, 5-10, 12-13, 16-17 and 20-25 are rejected under 35 U.S.C. 102(a) as

being anticipated by Nakanishi et al., EP 0 903 677 A2.

As to claim 1, Nakanishi teaches a method for providing concurrency control for a

policy-based management system that controls resources in a distributed computing

system, the method comprising (abstract and column 15 lines 27-55; *specifically,*

concurrent control is interpreted as simultaneous editing and simultaneous operation

control):

a) receiving a request to perform an operation on a lockable resource from a

controller (*locking means 101 in Fig. 1*) in the distributed computing system,

wherein the lockable resource includes one of a device, an appliance, a system,

and an application (column 5 line 38 – column 6 line 13 and column 15 lines 34-

41 and Figs. 1, 22; *specifically, a device, an appliance and a system are*

interpreted as a node, and an application is interpreted as WWW contents),

b) wherein the controller sends the request in order to enforce a first policy for

controlling resources in the distributed computing system (column 5 line 38 –

column 6 line 13 and Figs. 1, 22; *specifically, a first policy is interpreted as*

locking a specific node group 502 as shown in Fig. 22);

c) determining whether the controller holds a lock on the lockable resource is

taught by Nakanishi as determining the lock status of the lockable resource held

by the controller (column 5 line 38 – column 6 line 13 and Figs. 1, 22);

d) allowing the controller to execute the operation on the lockable resource if the

controller holds the lock on the lockable resource (column 5 line 38 – column 6

line 13 and Figs. 1, 22; *specifically, the operation is interpreted as editing*);

e) allowing the controller to acquire the lock if the controller does not hold the

lock on the lockable resource is taught by Nakanishi as allowing the controller to

acquire the lock if it is determined that a specific lockable resource should be

locked (column 5 line 38 – column 6 line 13 and Figs. 1, 22);

f) allowing the controller to execute the operation on the lockable resource if the

controller acquires the lock (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 2, Nakanishi teaches the first policy is configured to command

resources in the distributed computing system to perform actions so that the distributed

computing system operates in accordance with a rule that is enforced by the first policy, wherein the rule governs behavior of resources within the distributed computing system (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 5, Nakanishi teaches the lockable resource includes a resource within the distributed computing system (abstract and column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 6, Nakanishi teaches the lockable resource includes a second policy for controlling resources in the distributed computing system (column 7 line 50 – column 8 line 17 and Figs. 5, 23; *specifically, a second policy is interpreted as locking a specific node group 503 as shown in Fig. 23*).

As to claim 7, Nakanishi teaches the controller includes a client in the distributed computing system (column 15 lines 49-58).

As to claim 8, Nakanishi teaches the controller includes the first policy for controlling resources in the distributed computing system (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 9, Nakanishi teaches the controller includes a higher-level policy for controlling resources in the distributed computing system, and wherein the lockable resource includes a lower-level policy for controlling resources in the distributed computing system (column 7 line 50 – column 8 line 17 and Figs. 5, 23; *specifically, a higher-level policy is interpreted as editing node 501, and a lower-level policy is interpreted as locking a child node group 503 as shown in Fig. 23*).

As to claim 10, Nakanishi teaches allowing the controller to acquire the lock includes allowing the controller to acquire the lock from a resource that allocates locks to controllers (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 12, Nakanishi teaches a computer-readable storage medium storing instructions that when executed by a computer cause the computer to perform a method for providing concurrency control for a policy-based management system that controls resources in a distributed computing system, the method comprising (abstract and column 15 lines 27-55; *specifically, concurrent control is interpreted as simultaneous editing and simultaneous operation control*):

a) receiving a request to perform an operation on a lockable resource from a controller (*locking means 101 in Fig. 1*) in the distributed computing system, wherein the lockable resource includes one of a device, an appliance, a system, and an application (column 5 line 38 – column 6 line 13 and column 15 lines 34-41 and Figs. 1, 22; *specifically, a device, an appliance and a system are interpreted as a node, and an application is interpreted as WWW contents*),

b) wherein the controller sends the request in order to enforce a first policy for controlling resources in the distributed computing system (column 5 line 38 – column 6 line 13 and Figs. 1, 22; *specifically, a first policy is interpreted as locking a specific node group 502 as shown in Fig. 22*);

c) determining whether the controller holds a lock on the lockable resource is taught by Nakanishi as determining the lock status of the lockable resource held by the controller (column 5 line 38 – column 6 line 13 and Figs. 1, 22);

d) allowing the controller to execute the operation on the lockable resource if the

controller holds the lock on the lockable resource (column 5 line 38 – column 6

line 13 and Figs. 1, 22; *specifically, the operation is interpreted as editing*);

e) allowing the controller to acquire the lock if the controller does not hold the

lock on the lockable resource is taught by Nakanishi as allowing the controller to

acquire the lock if it is determined that a specific lockable resource should be

locked (column 5 line 38 – column 6 line 13 and Figs. 1, 22);

f) allowing the controller to execute the operation on the lockable resource if the

controller acquires the lock (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 13, Nakanishi teaches the first policy is configured to command

resources in the distributed computing system to perform actions so that the distributed

computing system operates in accordance with a rule that is enforced by the first policy,

wherein the rule governs behavior of resources within the distributed computing system

(column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 16, Nakanishi teaches an apparatus that provides concurrency

control for a policy-based management system that controls resources in a distributed

computing system, the apparatus comprising (abstract and column 15 lines 27-55;

specifically, concurrent control is interpreted as simultaneous editing and simultaneous

operation control):

a) receiving mechanism (*locking object determining means 103 in Fig. 1*) that

receives a request to perform an operation on a lockable resource from a

controller (*locking means 101 in Fig. 1*) in the distributed computing system,

wherein the lockable resource includes one of a device, an appliance, a system, and an application (column 5 line 38 – column 6 line 13 and column 15 lines 34-41 and Figs. 1, 22; *specifically, a device, an appliance and a system are interpreted as a node, and an application is interpreted as WWW contents*),

b) wherein the controller sends the request in order to enforce a first policy for controlling resources in the distributed computing system (column 5 line 38 – column 6 line 13 and Figs. 1, 22; *specifically, a first policy is interpreted as locking a specific node group 502 as shown in Fig. 22*);

c) a determining mechanism (*locking status maintaining means 201 in Fig. 1*) that determines whether the controller holds a lock on the lockable resource is taught by Nakanishi as a determining mechanism maintaining the lock status of the lockable resource held by the controller (column 5 line 38 – column 6 line 13 and Figs. 1, 22);

d) an execution mechanism (*locking means 101 in Fig. 1*) that is configured to,

    i.   allowing the controller to acquire the lock if the controller does not hold the lock on the lockable resource is taught by Nakanishi as allowing the controller to acquire the lock if it is determined that a specific lockable resource should be locked (column 5 line 38 – column 6 line 13 and Figs. 1, 22);

    ii.   allowing the controller to execute the operation on the lockable resource if the controller holds the lock on the lockable resource (column 5

line 38 – column 6 line 13 and Figs. 1, 22; *specifically, the operation is interpreted as editing*).

As to claim 17, Nakanishi teaches the first policy is configured to command resources in the distributed computing system to perform actions so that the distributed computing system operates in accordance with a rule that is enforced by the first policy, wherein the rule governs behavior of resources within the distributed computing system (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 20, Nakanishi teaches the lockable resource includes a resource within the distributed computing system (abstract and column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 21, Nakanishi teaches the lockable resource includes a second policy for controlling resources in the distributed computing system (column 7 line 50 – column 8 line 17 and Figs. 5, 23; *specifically, a second policy is interpreted as locking a specific node group 503 as shown in Fig. 23*).

As to claim 22, Nakanishi teaches the controller includes a client in the distributed computing system (column 15 lines 49-58).

As to claim 23, Nakanishi teaches the controller includes the first policy for controlling resources in the distributed computing system (column 5 line 38 – column 6 line 13 and Figs. 1, 22).

As to claim 24, Nakanishi teaches the controller includes a higher-level policy for controlling resources in the distributed computing system, and wherein the lockable resource includes a lower-level policy for controlling resources in the distributed

computing system (column 7 line 50 – column 8 line 17 and Figs. 5, 23; *specifically, a*

higher-level policy is interpreted as editing node 501, and a lower-level policy is

interpreted as locking a child node group 503 as shown in Fig. 23).

As to claim 25, Nakanishi teaches the execution mechanism is configured to

allow the controller to acquire the lock from a resource that allocates locks to controllers

(column 5 line 38 – column 6 line 13 and Figs. 1, 22).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakanishi et al., EP 0 903 677 A2 in view of Sudhakaran et al., U. S. Patent 6,161,150.

As to claims 3, 14 and 18, Nakanishi teaches the controller acquires lock on the

lockable resource as discussed above. Nakanishi does not specifically teach throwing

an exception if the controller does not hold the lock on the lockable resource and if the

controller does not acquire the lock. However, the corresponding matter is taught by

Sudhakaran as throwing an exception if a predetermined period of time expires before

the lock is acquired (column 58 lines 63-65). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to allow the teaching of

Nakanishi to include the feature of throwing an exception if the controller does not have

the lock because this would allow the user to be notified when the conflict object is

detected as stated by Sudhakaran (abstract); thus this would better detect the conflict object for the concurrency control in Nakanishi's teaching.

7. Claims 4, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi et al., EP 0 903 677 A2 in view of Ho, U. S. Patent 5,615,373.

As to claims 4, 15 and 19, Nakanishi teaches using lock to hold on the lockable resource as discussed above. Nakanishi does not specifically teach the lock held on the lockable resource <u>expires after a pre-specified lease period, unless the lease is renewed within the pre-specified lease period</u>. However, Ho teaches this matter (column 13 lines 25-29 and column 14 lines 13-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the lock in Nakanishi's teaching to include the feature of release the lock after a pre-specified lease period unless the lease is renewed within the pre-specified lease period because it would create flexibility for user to decide how long the lockable resource should be locked.

8. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakanishi et al., EP 0 903 677 A2 in view of Devarakonda et al., EP 0 665 495 A2.

As to claims 27 and 28, Nakanishi teaches providing concurrency control comprising lockable resource as discussed above. Nakanishi does not specifically teach the lockable resource presents <u>one or more independent locks providing access to independent sub-units of the resource</u>. However, Devarakonda teaches the lockable resource presents one or more independent locks (*local lock manager 114(1)-114(3) in Fig. 1*) providing access to independent sub-units (*items 102, 104 and 106 in Fig. 1*) of

the resource (column 3 lines 21-26 and Fig. 1). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to allow the lockable resource

in Nakanishi's teaching to include one or more independent locks providing access to

independent sub-units of the resource because this would allow the user to

independently control the partial resource of the shared files by being able to lock a

particular resource as desired without interference with other sources.

Response to Arguments

9. Applicant's arguments with respect to claims 1-10, 12-25 and 27-28 have been

considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments filed October 2, 2003 have been fully considered but they are

not persuasive.

Applicant argues that Nakanishi (EP 0 903 677 A2) does not teach locking

resources such as devices, appliances, systems, and applications with a distributing

computer system. Examiner respectfully disagrees because the locking resources such

as devices, appliances and systems are taught by Nakanishi as the lockable nodes, and

the applications corresponds to the lockable WWW contents (column 5 line 38 – column

6 line 13 and column 15 lines 34-41).

Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Cheung whose telephone number is (703)-305-0084. The examiner can normally be reached on Monday – Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell, can be reached on (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

The fax phone number for the organization where this application or proceedings is assigned are as follows:

(703) 872-9306   (Official Communications; including After Final

Communications labeled "BOX AF")

(703) 746-5619   (Draft Communications)

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, 7th Floor Receptionist.

Mary Cheung
Patent Examiner
Art Unit 3621
December 2, 2003